

CLAIMS

1. An image forming process comprising the steps of:

5 applying a first material for improving the wettability of the surface of an intermediate transfer medium to the intermediate transfer medium,
 applying a second material for lowering the flowability of an ink to the intermediate transfer
10 medium to which the first material has been applied,
 applying the ink to the intermediate transfer medium, to which the first material and second material have been applied, from an ink-jet recording head to form an image of the ink on the
15 intermediate transfer medium, and
 transferring the ink image formed to a recording medium.

2. An image forming process for transferring
20 an image of an ink formed on an intermediate transfer medium having a non-absorbent surface to a recording medium, thereby forming the ink image on the recording medium, which comprises the steps of:
 applying a first material for enhancing the
25 surface energy of the surface of the intermediate transfer medium to the intermediate transfer medium,
 applying a second material for aggregating a

coloring material in the ink to the intermediate transfer medium to which the first material has been applied,

applying the ink to the intermediate transfer
5 medium, to which the first material and second material have been applied, from an ink-jet recording head to form the ink image on the intermediate transfer medium, and

transferring the ink image formed to the
10 recording medium.

3. An image forming process comprising the steps of:

applying a first liquid containing a
15 surfactant to an intermediate transfer medium having a surface containing at least one material of a fluororubber and a silicone rubber,

applying a second liquid for aggregating a coloring material in an ink to the intermediate
20 transfer medium to which the first liquid has been applied,

applying the ink to the intermediate transfer medium, to which the first liquid and second liquid have been applied, from an ink-jet recording head
25 to form an image of the ink on the intermediate transfer medium, and

transferring the ink image formed to the

recording medium.

4. The image forming process according to claim 1 or 2, wherein the surface of the
5 intermediate transfer medium is of a material containing fluorine or silicone.

5. The image forming process according to claim 1 or 2, wherein the surface of the
10 intermediate transfer medium has a rubber hardness ranging from 10 to 100°.

6. The image forming process according to claim 1 or 2, wherein the first material is a
15 liquid containing a surfactant.

7. The image forming process according to claim 1 or 2, wherein a position to which the first material is applied is changed according to an
20 image to be formed.

8. The image forming process according to claim 1 or 2, wherein the second material is a liquid containing a metal ion.

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9. The image forming process according to claim 1 or 2, wherein a position to which the

second material is applied is changed according to an image to be formed.

10. The image forming process according to
5 claim 8, wherein the second material contains a surfactant.

11. The image forming process according to
claim 1, wherein at least one of the first material,
10 second material and ink contains a crosslinking agent.

12. The image forming process according to
claim 1, which further comprises the step of
15 facilitating the removal of a solvent contained in the ink image formed on the intermediate transfer medium.

13. The image forming process according to
20 claim 1, wherein at least one of the first material and second material is applied by using a head of an ink-jet system.

14. An image forming apparatus for
25 transferring an image of an ink formed on an intermediate transfer medium having a releasable surface to a recording medium, thereby forming the

ink image on the recording medium, which comprises:

a first applying means for applying a first liquid for improving the wettability of the surface of the intermediate transfer medium to the

5 intermediate transfer medium,

a second applying means for applying a second liquid for lowering the flowability of the ink to the intermediate transfer medium to which the first liquid has been applied, and

10 an ink-jet recording head for applying the ink to the intermediate transfer medium, to which the first liquid and second liquid have been applied, on the basis of image data.

15 15. An image forming process comprising the steps of:

applying a first liquid for improving the wettability of a recording medium to the recording medium,

20 applying a second liquid for lowering the flowability of an ink to the recording medium to which the first liquid has been applied, and

applying the ink to the recording medium, to which the first liquid and second liquid have been
25 applied, from an ink-jet recording head to form an image of the ink on the recording medium.

16. An image forming process for forming an image of an ink on a recording medium having a non-absorbent surface, which comprises the steps of:

5 applying a first material for enhancing the surface energy of the surface of the recording medium to the recording medium,

 applying a second material for aggregating a coloring material in the ink to the recording medium to which the first material has been applied,
10 and

 applying the ink to the recording medium, to which the first material and second material have been applied, from an ink-jet recording head to form the ink image on the recording medium.

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